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Conference Abstract

Towards a French National Biodiversity Virtual Research Environment

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Abstract

Research processes in biodiversity are evolving at a rapid pace, particularly regarding data-related steps from collection to analysis. This evolution, mainly due to technological advances, offers equipment that is more powerful and generalizes the digitalization of research data and associated products. It is now urgent to accelerate good practices in scientific data management and analysis in order to offer products and services corresponding to the new context, presenting more and more openness, requiring more and more FAIRness (Wilkinson et al. 2016). Using Information and Communication Technology (ICT) as international standards and software (Ecological Metadata Language and associated solutions for metadata management, Galaxy web platform for data analysis), we propose, through the national research e-infrastructure called "Pôle national de données de biodiversité" (or PNDB, formerly ECOSCOPE), to build a new type of Biodiversity Virtual Research Environment (VRE) for French communities. Although deployment of this kind of environment is challenging, it represents an opportunity to pave the way towards better research processes through enhanced collaboration, data management, analysis practices and resources optimization.

Keywords

Virtual Research Environment, VRE, e-infrastructure, EML, Metacat, Galaxy, Galaxy-E, biodiversity, ecology

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